

Supplementary Table 2. Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG00000000935	ENSDART0000001053	Dr.24249.1.S1_at	zc3hd5	zinc finger CCCH type domain containing 5 [Source:RefSeq_peptide;Acc:NP_956530]	-4874	-4869	-1	agcgtg
ENSDARG00000000935	ENSDART0000001053	Dr.24249.1.S1_at	zc3hd5	zinc finger CCCH type domain containing 5 [Source:RefSeq_peptide;Acc:NP_956530]	-2211	-2206	-1	tcgctg
ENSDARG00000000935	ENSDART0000001053	Dr.24249.1.S1_at	zc3hd5	zinc finger CCCH type domain containing 5 [Source:RefSeq_peptide;Acc:NP_956530]	210	215	-1	tcgctg
ENSDARG00000000935	ENSDART0000001053	Dr.24249.1.S1_at	zc3hd5	zinc finger CCCH type domain containing 5 [Source:RefSeq_peptide;Acc:NP_956530]	748	753	-1	agcgtg
ENSDARG00000001953	ENSDART00000003247	Dr.7626.1.A1_at,Dr.7626.2.S1_at	NP_998562.1	zgc:73257 [Source:RefSeq_peptide;Acc:NP_998562]	-1683	-1678	-1	tcgctg
ENSDARG00000001953	ENSDART00000003247	Dr.7626.1.A1_at,Dr.7626.2.S1_at	NP_998562.1	zgc:73257 [Source:RefSeq_peptide;Acc:NP_998562]	-1087	-1082	-1	ggcgtg
ENSDARG00000001953	ENSDART00000003247	Dr.7626.1.A1_at,Dr.7626.2.S1_at	NP_998562.1	zgc:73257 [Source:RefSeq_peptide;Acc:NP_998562]	-862	-857	-1	agcgtg
ENSDARG00000002953	ENSDART00000003247	Dr.7626.1.A1_at,Dr.7626.2.S1_at	NP_998562.1	zgc:73257 [Source:RefSeq_peptide;Acc:NP_998562]	-347	-342	-1	tcgctg
ENSDARG00000002082	ENSDART00000005010	Dr.195.1.S1_at,Dr.195.1.S2_at,Dr.195.1.S1_at	ck2a1	casein kinase 2 alpha 1 [Source:RefSeq_peptide;Acc:NP_571327]	-983	-978	1	agcgtg
ENSDARG00000002082	ENSDART00000005010	Dr.195.1.S1_at,Dr.195.1.S2_at,Dr.195.1.S1_at	ck2a1	casein kinase 2 alpha 1 [Source:RefSeq_peptide;Acc:NP_571327]	-941	-936	1	cgcgtg
ENSDARG00000002082	ENSDART00000005010	Dr.195.1.S1_at,Dr.195.1.S2_at,Dr.195.1.S1_at	ck2a1	casein kinase 2 alpha 1 [Source:RefSeq_peptide;Acc:NP_571327]	-846	-841	-1	tcgctg
ENSDARG00000002082	ENSDART00000005010	Dr.195.1.S1_at,Dr.195.1.S2_at,Dr.195.1.S1_at	ck2a1	casein kinase 2 alpha 1 [Source:RefSeq_peptide;Acc:NP_571327]	-726	-721	1	ggcgtg
ENSDARG00000002082	ENSDART00000005010	Dr.195.1.S1_at,Dr.195.1.S2_at,Dr.195.1.S1_at	ck2a1	casein kinase 2 alpha 1 [Source:RefSeq_peptide;Acc:NP_571327]	-553	-548	1	ggcgtg
ENSDARG00000002667	ENSDART00000003004	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	klm12.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-248	-243	1	ggcgtg
ENSDARG00000002667	ENSDART00000003004	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	klm12.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-215	-210	1	agcgtg
ENSDARG00000002667	ENSDART00000003004	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	klm12.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-248	-243	1	ggcgtg
ENSDARG00000002667	ENSDART00000003004	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	klm12.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-215	-210	1	agcgtg
ENSDARG00000003216	ENSDART00000011967	Dr.1260.1.S1_at	annexin A2a (anxa2a), mRNA [Source:RefSeq_dna;Acc:NM_181761]	-3672	-3667	-1	agcgtg	
ENSDARG00000003323	ENSDART00000017567	Dr.12575.1.S1_at	dcp1a	decapping enzyme [Source:RefSeq_peptide;Acc:NP_878313]	-2628	-2623	-1	tcgctg
ENSDARG00000003323	ENSDART00000017567	Dr.12575.1.S1_at	dcp1a	decapping enzyme [Source:RefSeq_peptide;Acc:NP_878313]	-2299	-2294	-1	ggcgtg
ENSDARG00000003323	ENSDART00000017567	Dr.12575.1.S1_at	dcp1a	decapping enzyme [Source:RefSeq_peptide;Acc:NP_878313]	-170	-165	1	agcgtg
ENSDARG00000004060	ENSDART00000026017	Dr.3180.1.A1_at	zgc:76913	Unknown (protein for MGC:76913) [Source:RefSeq_peptide;Acc:NP_997844]	-1103	-1098	-1	tcgctg
ENSDARG00000004296	ENSDART00000027026	Dr.2426.1.S1_at	zgc:66321	similar to alpha-1-microglobulin/bikunin precursor [Source:RefSeq_peptide;Acc:NP_957412]	-3749	-3744	1	tcgctg
ENSDARG00000004296	ENSDART00000027026	Dr.2426.1.S1_at	zgc:66321	similar to alpha-1-microglobulin/bikunin precursor [Source:RefSeq_peptide;Acc:NP_957412]	-3743	-3738	1	tcgctg
ENSDARG00000004296	ENSDART00000027026	Dr.2426.1.S1_at	zgc:66321	similar to alpha-1-microglobulin/bikunin precursor [Source:RefSeq_peptide;Acc:NP_957412]	-3737	-3732	1	tcgctg
ENSDARG00000004296	ENSDART00000027026	Dr.2426.1.S1_at	zgc:66321	similar to alpha-1-microglobulin/bikunin precursor [Source:RefSeq_peptide;Acc:NP_957412]	-3725	-3720	1	tcgctg
ENSDARG00000004296	ENSDART00000027026	Dr.2426.1.S1_at	zgc:66321	similar to alpha-1-microglobulin/bikunin precursor [Source:RefSeq_peptide;Acc:NP_957412]	30	35	1	tcgctg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-3691	-3686	1	tcgctg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-3596	-3591	1	agcgtg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-855	-850	-1	tcgctg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-844	-839	1	ggcgtg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-820	-815	-1	agcgtg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-791	-786	1	ggcgtg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-532	-527	-1	ggcgtg
ENSDARG00000005186	ENSDART00000002285	Dr.26469.1.S1_at	NP_956418.1	sp4 transcription factor [Source:RefSeq_peptide;Acc:NP_956418]	-383	-378	-1	agcgtg
ENSDARG00000006074	ENSDART00000002186	Dr.15856.1.A1_at,Dr.13404.1.A1_at	NP_956234.1	uridine monophosphate kinase [Source:RefSeq_peptide;Acc:NP_956234]	-3203	-3198	1	tcgctg
ENSDARG00000006526	ENSDART00000017312	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-2209	-2204	1	ggcgtg
ENSDARG00000006526	ENSDART00000017312	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-2163	-2158	-1	ggcgtg
ENSDARG00000006526	ENSDART00000017312	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-1504	-1499	-1	tcgctg
ENSDARG00000006526	ENSDART00000017312	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-4430	-4425	1	ggcgtg
ENSDARG00000006526	ENSDART00000017312	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-4387	-4382	-1	agcgtg
ENSDARG00000006526	ENSDART00000023692	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-2223	-2218	1	agcgtg
ENSDARG00000006526	ENSDART00000023692	Dr.24233.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-1263	-1258	1	tcgctg
ENSDARG00000007219	ENSDART00000005791	Dr.25774.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-2349	-2344	-1	agcgtg
ENSDARG00000007219	ENSDART00000005791	Dr.25774.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-1147	-1142	-1	agcgtg
ENSDARG00000007219	ENSDART00000005791	Dr.25774.1.S1_at	fn1b	fibronectin 1b (fn1b), mRNA [Source:RefSeq_dna;Acc:NM_001013261]	-817	-812	-1	agcgtg
ENSDARG00000007481	ENSDART00000058261	Dr.5002.1.A1_at	rap1b	RAS related protein 1b [Source:RefSeq_peptide;Acc:NP_955827]	-12	-7	1	cgcgtg
ENSDARG00000008867	ENSDART00000042250	Dr.3628.1.S1_at	rap1b	RAS related protein 1b [Source:RefSeq_peptide;Acc:NP_955827]	-3595	-3590	-1	cgcgtg
ENSDARG00000008867	ENSDART00000042250	Dr.3628.1.S1_at	rap1b	RAS related protein 1b [Source:RefSeq_peptide;Acc:NP_955827]	-1533	-1528	-1	tcgctg
ENSDARG00000008867	ENSDART00000042250	Dr.3628.1.S1_at	rap1b	RAS related protein 1b [Source:RefSeq_peptide;Acc:NP_955827]	-234	-229	-1	agcgtg
ENSDARG00000008895	ENSDART00000055048	Dr.1619.1.A1_at,Dr.1619.1.A1_at,Dr.1619.1.A1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-1617	-1612	1	cgcgtg
ENSDARG00000008969	ENSDART00000011701	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-3590	-3585	1	agcgtg
ENSDARG00000008969	ENSDART00000011701	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-3263	-3258	1	ggcgtg
ENSDARG00000008969	ENSDART00000011701	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-2312	-2307	-1	tcgctg
ENSDARG00000008969	ENSDART00000011701	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-2219	-2214	-1	cgcgtg
ENSDARG00000008969	ENSDART00000041987	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-311	-306	-1	tcgctg
ENSDARG00000008969	ENSDART00000041987	Dr.5462.1.S1_at,Dr.5462.1.S1_at	fgb	fibrinogen, B beta polypeptide [Source:RefSeq_peptide;Acc:NP_997939]	-178	-173	1	tcgctg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1352	-1347	-1	cgcgtg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1350	-1345	1	cgcgtg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1280	-1275	1	agcgtg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1352	-1347	-1	cgcgtg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1350	-1345	1	cgcgtg
ENSDARG00000009483	ENSDART00000009889	Dr.25378.1.A1_at,Dr.24858.1.S1_at	zgc:110540	deoxycytidine kinase [Source:RefSeq_peptide;Acc:NP_001014374]	-1280	-1275	1	agcgtg
ENSDARG00000010312	ENSDART00000010537	Dr.3613.1.S1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-3990	-3985	-1	tcgctg
ENSDARG00000010312	ENSDART00000010537	Dr.3613.1.S1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-1870	-1865	-1	ggcgtg
ENSDARG00000010312	ENSDART00000010537	Dr.3613.1.S1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-1737	-1732	1	ggcgtg
ENSDARG00000010312	ENSDART00000010537	Dr.3613.1.S1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-125	-120	1	tcgctg
ENSDARG00000010420	ENSDART00000049420	Dr.8090.1.A1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-3038	-3033	1	agcgtg
ENSDARG00000010420	ENSDART00000049420	Dr.8090.1.A1_at	ndrg1l	N-myc downstream regulated gene 1, like [Source:RefSeq_peptide;Acc:NP_956986]	-2866	-2855	-1	agcgtg
ENSDARG00000010481	ENSDART00000013575	Dr.25498.1.S1_at	NP_956002.1	basic leucine zipper and W2 domains 1 [Source:RefSeq_peptide;Acc:NP_956002]	-2137	-2132	-1	ggcgtg
ENSDARG00000010481	ENSDART00000013575	Dr.25498.1.S1_at	NP_956002.1	basic leucine zipper and W2 domains 1 [Source:RefSeq_peptide;Acc:NP_956002]	-1647	-1642	1	tcgctg
ENSDARG00000011312	ENSDART00000008698	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-3610	-3605	-1	agcgtg
ENSDARG00000011312	ENSDART00000008698	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-3392	-3387	-1	agcgtg
ENSDARG00000011312	ENSDART00000008698	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-3025	-3020	-1	agcgtg
ENSDARG00000011312	ENSDART00000008698	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-2651	-2646	-1	agcgtg
ENSDARG00000011312	ENSDART00000008698	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1477	-1472	-1	agcgtg
ENSDARG00000011683	ENSDART00000013454	Dr.8045.1.S1_at	NP_955812.2	HHPG protein [Source:RefSeq_peptide;Acc:NP_955812]	-1022	-97	-1	ggcgtg
ENSDARG00000012395	ENSDART00000005436	Dr.10314.1.S1_a_at	mmp13	matrix metalloproteinase 13 [Source:RefSeq_peptide;Acc:NP_958911]	-2663	-2658	-1	tcgctg
ENSDARG00000012395	ENSDART00000005436	Dr.10314.1.S1_a_at	mmp13	matrix metalloproteinase 13 [Source:RefSeq_peptide;Acc:NP_958911]	-2528	-2523	1	ggcgtg
ENSDARG00000012395	ENSDART00000005436	Dr.10314.1.S1_a_at	mmp13	matrix metalloproteinase 13 [Source:RefSeq_peptide;Acc:NP_958911]	-2276	-2271	-1	cgcgtg
ENSDARG00000012395	ENSDART00000005436	Dr.10314.1.S1_a_at	mmp13	matrix metalloproteinase 13 [Source:RefSeq_peptide;Acc:NP_958911]	-2020	-2015	1	ggcgtg

Supplementary Table 2 (cont.). Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG00000013481	ENSDART00000007454	Dr.17662.1.S1_at	bty	bloodthirsty (bty), mRNA [Source:RefSeq_dna;Acc:NM_001020475]	-1542	-1537	-1	tcgctg
ENSDARG00000013613	ENSDART00000018408	Dr.16504.1.A1_at	zgc:112421	hypothetical protein LOC554118 [Source:RefSeq_peptide;Acc:NP_001019585]	-1875	-1870	-1	ccgctg
ENSDARG00000013613	ENSDART00000018408	Dr.16504.1.A1_at	zgc:112421	hypothetical protein LOC554118 [Source:RefSeq_peptide;Acc:NP_001019585]	-1475	-1470	-1	tcgctg
ENSDARG00000013613	ENSDART00000018408	Dr.16504.1.A1_at	zgc:112421	hypothetical protein LOC554118 [Source:RefSeq_peptide;Acc:NP_001019585]	-1422	-1417	-1	agcgtg
ENSDARG00000013646	ENSDART00000019664	Dr.1605.1.S1_at	serpina1	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1 [Source:RefSeq_peptide;Acc:NP_001013277]	-4808	-4803	-1	agcgtg
ENSDARG00000014209	ENSDART00000023208	Dr.15930.1.A1_at	NP_001017836.1	hypothetical protein LOC550534 [Source:RefSeq_peptide;Acc:NP_001017836]	-3248	-3243	-1	agcgtg
ENSDARG00000014209	ENSDART00000023208	Dr.15930.1.A1_at	NP_001017836.1	hypothetical protein LOC550534 [Source:RefSeq_peptide;Acc:NP_001017836]	-2763	-2758	-1	agcgtg
ENSDARG00000014209	ENSDART00000023208	Dr.15930.1.A1_at	NP_001017836.1	hypothetical protein LOC550534 [Source:RefSeq_peptide;Acc:NP_001017836]	-4258	-4253	-1	ggcgtg
ENSDARG00000014429	ENSDART00000017280	Dr.4907.1.S1_at	fgg	fibrinogen gamma polypeptide [Source:RefSeq_peptide;Acc:NP_998219]	-4836	-4831	1	ccgctg
ENSDARG00000014629	ENSDART00000020883	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4912	-4907	-1	tcgctg
ENSDARG00000014629	ENSDART00000020883	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4071	-4066	-1	agcgtg
ENSDARG00000014629	ENSDART00000049779	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4912	-4907	-1	tcgctg
ENSDARG00000014629	ENSDART00000049779	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4071	-4066	-1	agcgtg
ENSDARG00000014629	ENSDART00000066174	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4912	-4907	-1	tcgctg
ENSDARG00000014629	ENSDART00000066174	Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at,Dr.921.1.A1_at,DrAffx.2.64.S1_at			-4071	-4066	-1	agcgtg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-3978	-3973	-1	tcgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-3265	-3260	-1	tcgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-2732	-2727	-1	tcgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1510	-1505	1	ccgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1468	-1463	-1	ccgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1419	-1414	-1	ccgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1375	-1370	1	tcgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1229	-1224	1	ccgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-1076	-1071	-1	ccgctg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-229	-224	-1	agcgtg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-220	-215	-1	agcgtg
ENSDARG00000014947	ENSDART00000026576	Dr.8587.1.A1_at,Dr.8587.1.A2_at	igfbp1	insulin-like growth factor binding protein 1 [Source:RefSeq_peptide;Acc:NP_775390]	-72	-67	-1	agcgtg
ENSDARG00000015866	ENSDART00000019110	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-3239	-3234	-1	tcgctg
ENSDARG00000015866	ENSDART00000019110	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-401	-396	1	ccgctg
ENSDARG00000015866	ENSDART00000058963	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-3537	-3532	-1	tcgctg
ENSDARG00000015866	ENSDART00000058963	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-699	-694	1	ccgctg
ENSDARG00000015866	ENSDART00000058964	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-3239	-3234	-1	tcgctg
ENSDARG00000015866	ENSDART00000058964	Dr.728.4.S1_at,Dr.728.4.S1_at,Dr.728.4.S1_at			-401	-396	1	ccgctg
ENSDARG00000016059	ENSDART00000021065	Dr.13182.1.A1_at	rab5b	RAB5B, member RAS oncogene family [Source:RefSeq_peptide;Acc:NP_998050]	-3042	-3037	-1	tcgctg
ENSDARG00000016059	ENSDART00000021065	Dr.13182.1.A1_at	rab5b	RAB5B, member RAS oncogene family [Source:RefSeq_peptide;Acc:NP_998050]	-2041	-2036	-1	agcgtg
ENSDARG00000016059	ENSDART00000021065	Dr.13182.1.A1_at	rab5b	RAB5B, member RAS oncogene family [Source:RefSeq_peptide;Acc:NP_998050]	-672	-667	-1	agcgtg
ENSDARG00000016059	ENSDART00000021065	Dr.13182.1.A1_at	rab5b	RAB5B, member RAS oncogene family [Source:RefSeq_peptide;Acc:NP_998050]	-4468	-4463	1	agcgtg
ENSDARG00000016448	ENSDART00000014979	Dr.2978.1.S1_at	vg3	Vitellogenin 3 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q9DFT9]	-1530	-1525	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-3533	-3528	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-3351	-3346	-1	agcgtg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-2761	-2756	-1	ccgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-2755	-2750	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-4965	-4960	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-3533	-3528	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-3351	-3346	-1	agcgtg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-2761	-2756	-1	ccgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-2755	-2750	-1	tcgctg
ENSDARG00000016771	ENSDART00000003845	Dr.1889.2.A1_a_at,Dr.1889.1.S1_at	tfa	transferrin-a [Source:RefSeq_peptide;Acc:NP_001015057]	-4965	-4960	-1	tcgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-3552	-3547	-1	ccgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-2451	-2446	-1	tcgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-1138	-1133	-1	tcgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-3552	-3547	1	ccgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-2451	-2446	-1	tcgctg
ENSDARG00000016825	ENSDART00000050238	Dr.25009.6.A1_a_at,Dr.25009.1.S1_a_at	NP_739573.1	vitellogenin 1 [Source:RefSeq_peptide;Acc:NP_739573]	-1138	-1133	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3793	-3788	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3785	-3780	1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3587	-3582	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3364	-3359	-1	ggcgtg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2980	-2975	1	agcgtg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2502	-2497	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-1174	-1169	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2596	-2591	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4243	-4238	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4239	-4234	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4053	-4048	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3793	-3788	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3785	-3780	1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3587	-3582	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3364	-3359	1	ggcgtg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2980	-2975	-1	agcgtg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2502	-2497	-1	tcgctg
ENSDARG00000017619	ENSDART00000026842	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-1174	-1169	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2596	-2591	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4243	-4238	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4239	-4234	-1	tcgctg
ENSDARG00000017619	ENSDART00000038499	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4053	-4048	-1	tcgctg
ENSDARG00000017624	ENSDART00000012644	Dr.4387.1.S1_at	kr4	keratin 4 [Source:RefSeq_peptide;Acc:NP_571584]	-1874	-1869	-1	tcgctg
ENSDARG00000017624	ENSDART00000012644	Dr.4387.1.S1_at	kr4	keratin 4 [Source:RefSeq_peptide;Acc:NP_571584]	-1435	-1430	-1	tcgctg
ENSDARG00000017624	ENSDART00000012644	Dr.4387.1.S1_at	kr4	keratin 4 [Source:RefSeq_peptide;Acc:NP_571584]	-9	-4	-1	tcgctg
ENSDARG00000018404	ENSDART00000020750	Dr.1372.1.S1_at	kr18	keratin 18 [Source:RefSeq_peptide;Acc:NP_848524]	-2408	-2403	-1	ggcgtg
ENSDARG00000018404	ENSDART00000020750	Dr.1372.1.S1_at	kr18	keratin 18 [Source:RefSeq_peptide;Acc:NP_848524]	-4641	-4636	-	

Supplementary Table 2 (cont.). Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence	
ENSDARG00000018529	ENSDART00000020541	Dr.4249.1.S1_at	lipf	lipase, gastric [Source:RefSeq_peptide;Acc:NP_998569]		0	5	-1	agcgtg
ENSDARG00000018921	ENSDART00000023006	Dr.9450.1.A1_at	NP_956912.1	hypothetical protein LOC393590 [Source:RefSeq_peptide;Acc:NP_956912]	-1589	-1584	1	tcgctg	
ENSDARG00000018921	ENSDART00000023006	Dr.9450.1.A1_at	NP_956912.1	hypothetical protein LOC393590 [Source:RefSeq_peptide;Acc:NP_956912]	-1563	-1558	1	tcgctg	
ENSDARG00000018921	ENSDART00000023006	Dr.9450.1.A1_at	NP_956912.1	hypothetical protein LOC393590 [Source:RefSeq_peptide;Acc:NP_956912]	-1559	-1554	1	tcgctg	
ENSDARG00000018921	ENSDART00000023006	Dr.9450.1.A1_at	NP_956912.1	hypothetical protein LOC393590 [Source:RefSeq_peptide;Acc:NP_956912]	25	30	-1	cgctgt	
		Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at							
ENSDARG00000019057	ENSDART00000032224	Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at			-3377	-3372	-1	tcgctg	
ENSDARG00000019057	ENSDART00000048630	Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at,Dr.18039.1.S1_at,Dr.11348.1.S1_x_at,Dr.11348.1.S1_at			-3377	-3372	-1	tcgctg	
ENSDARG00000019057	ENSDART00000050015	Dr.11348.1.S1_at			-3377	-3372	-1	tcgctg	
ENSDARG00000019302	ENSDART0000007649	Dr.25285.1.S1_at,Dr.11211.1.S1_at	zgc:73223	hypothetical protein MGC73223 [Source:RefSeq_peptide;Acc:NP_957126]	-3810	-3805	1	agcgtg	
ENSDARG00000019302	ENSDART0000007649	Dr.25285.1.S1_at,Dr.11211.1.S1_at	zgc:73223	hypothetical protein MGC73223 [Source:RefSeq_peptide;Acc:NP_957126]	-2001	-1996	1	tcgctg	
ENSDARG00000019302	ENSDART0000007649	Dr.25285.1.S1_at,Dr.11211.1.S1_at	zgc:73223	hypothetical protein MGC73223 [Source:RefSeq_peptide;Acc:NP_957126]	-348	-343	-1	tcgctg	
ENSDARG00000019302	ENSDART0000007649	Dr.25285.1.S1_at,Dr.11211.1.S1_at	zgc:73223	hypothetical protein MGC73223 [Source:RefSeq_peptide;Acc:NP_957126]	-4447	-4442	1	tcgctg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-3963	-3958	-1	agcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-2701	-2696	-1	ggcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-4704	-4699	-1	agcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1423	-1418	-1	agcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1407	-1402	1	ggcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1232	-1227	-1	tcgctg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1189	-1184	-1	tcgctg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1139	-1134	-1	tcgctg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1084	-1079	-1	cgctgt	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1056	-1051	-1	cgctgt	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-1016	-1011	-1	cgctgt	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-623	-618	1	cgctgt	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-159	-154	-1	tcgctg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-4337	-4332	-1	agcgtg	
ENSDARG00000019469	ENSDART00000011211	Dr.24253.1.S1_at	stk3	serine/threonine kinase 3 (STE20 homolog, yeast) [Source:RefSeq_peptide;Acc:NP_955966]	-4922	-4917	-1	agcgtg	
ENSDARG00000019862	ENSDART00000009054	Dr.913.1.S1_at	zgc:63909	tropomyosin 4 isoform 2 [Source:RefSeq_peptide;Acc:NP_998323]	-3027	-3022	1	tcgctg	
ENSDARG00000019862	ENSDART00000009054	Dr.913.1.S1_at	zgc:63909	tropomyosin 4 isoform 2 [Source:RefSeq_peptide;Acc:NP_998323]	-2322	-2317	1	agcgtg	
ENSDARG00000019862	ENSDART00000009054	Dr.913.1.S1_at	zgc:63909	tropomyosin 4 isoform 2 [Source:RefSeq_peptide;Acc:NP_998323]	-1865	-1860	1	agcgtg	
ENSDARG00000020007	ENSDART00000042990	Dr.1377.1.A1_at,Dr.23532.1.A1_at,Dr.5521.1.S1_at	col1a2	collagen, type I, alpha 2 [Source:RefSeq_peptide;Acc:NP_892013]	-3691	-3686	-1	cgctgt	
ENSDARG00000020007	ENSDART00000042990	Dr.1377.1.A1_at,Dr.23532.1.A1_at,Dr.5521.1.S1_at	col1a2	collagen, type I, alpha 2 [Source:RefSeq_peptide;Acc:NP_892013]	-2964	-2959	1	cgctgt	
ENSDARG00000020007	ENSDART00000042990	Dr.1377.1.A1_at,Dr.23532.1.A1_at,Dr.5521.1.S1_at	col1a2	collagen, type I, alpha 2 [Source:RefSeq_peptide;Acc:NP_892013]	-2808	-2803	1	tcgctg	
ENSDARG00000020007	ENSDART00000042990	Dr.1377.1.A1_at,Dr.23532.1.A1_at,Dr.5521.1.S1_at	col1a2	collagen, type I, alpha 2 [Source:RefSeq_peptide;Acc:NP_892013]	-909	-904	-1	tcgctg	
ENSDARG00000020007	ENSDART00000042990	Dr.1377.1.A1_at,Dr.23532.1.A1_at,Dr.5521.1.S1_at	col1a2	collagen, type I, alpha 2 [Source:RefSeq_peptide;Acc:NP_892013]	-234	-229	-1	cgctgt	
ENSDARG00000020190	ENSDART00000003437	Dr.25086.1.A1_at			6	11	-1	tcgctg	
ENSDARG00000020190	ENSDART00000003437	Dr.25086.1.A1_at			-2407	-2402	-1	agcgtg	
ENSDARG00000020485	ENSDART00000011573	Dr.10314.1.S1_a_at			-4030	-4025	1	ggcgtg	
ENSDARG00000020485	ENSDART00000011573	Dr.10314.1.S1_a_at			-3871	-3866	-1	tcgctg	
ENSDARG00000020485	ENSDART00000011573	Dr.10314.1.S1_a_at			-3757	-3752	1	agcgtg	
ENSDARG00000020485	ENSDART00000011573	Dr.10314.1.S1_a_at			-4843	-4838	-1	ggcgtg	
ENSDARG00000020485	ENSDART00000011573	Dr.10314.1.S1_a_at			-1953	-1948	1	tcgctg	
ENSDARG00000020893	ENSDART00000004693	Dr.17850.1.S1_at	zgc:56592	zgc:56592 [Source:RefSeq_peptide;Acc:NP_998573]	-1091	-1086	1	ggcgtg	
ENSDARG00000020893	ENSDART00000004693	Dr.17850.1.S1_at	zgc:56592	zgc:56592 [Source:RefSeq_peptide;Acc:NP_998573]	-1911	-1906	1	ggcgtg	
ENSDARG00000021443	ENSDART00000014168	Dr.24122.1.A1_at	NP_955943.1	CCCH zinc finger protein C3H-2 [Source:RefSeq_peptide;Acc:NP_955943]	-4527	-4522	-1	cgctgt	
ENSDARG00000021443	ENSDART00000014168	Dr.24122.1.A1_at	NP_955943.1	CCCH zinc finger protein C3H-2 [Source:RefSeq_peptide;Acc:NP_955943]	-3319	-3314	1	cgctgt	
ENSDARG00000022295	ENSDART00000029465	Dr.15418.1.S1_at	wu:fc23f06	transcription factor 2 like protein [Source:RefSeq_peptide;Acc:NP_919353]	-71	-66	1	ggcgtg	
ENSDARG00000022295	ENSDART00000029465	Dr.15418.1.S1_at	wu:fc23f06	transcription factor 2 like protein [Source:RefSeq_peptide;Acc:NP_919353]	-4671	-4666	1	ggcgtg	
ENSDARG00000022767	ENSDART00000028709	Dr.5662.1.S1_at	Q5BLC2_BRARE	Novel protein similar to vertebrate apolipoprotein B (Including Ag(X) antigen) (APOB). [Source:Uniprot/SPTREMBL;Acc:Q5TZ29]	-152	-147	1	agcgtg	
ENSDARG00000022767	ENSDART00000028709	Dr.5662.1.S1_at	Q5BLC2_BRARE	Novel protein similar to vertebrate apolipoprotein B (Including Ag(X) antigen) (APOB). [Source:Uniprot/SPTREMBL;Acc:Q5TZ29]	-2584	-2579	-1	tcgctg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-780	-775	1	tcgctg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-3618	-3613	1	agcgtg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-3588	-3583	-1	agcgtg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-2611	-2606	-1	agcgtg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-2515	-2510	-1	tcgctg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-4711	-4706	1	tcgctg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-1933	-1928	1	tcgctg	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-1521	-1516	1	cgctgt	
ENSDARG00000023820	ENSDART00000038657	Dr.8390.1.S1_at	zgc:55420	hypothetical protein LOC406828 [Source:RefSeq_peptide;Acc:NP_998672]	-162	-157	-1	tcgctg	
ENSDARG00000024407	ENSDART00000033943	Dr.16681.1.A1_at	mamd1	Novel protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q7ZZ84]	-2931	-2926	1	tcgctg	
ENSDARG00000024407	ENSDART00000033943	Dr.16681.1.A1_at	mamd1	Novel protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q7ZZ84]	-2240	-2235	-1	tcgctg	
ENSDARG00000024480	ENSDART00000034117	Dr.3512.1.A1_at	Q6NWE8_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6NWE8]	-1626	-1621	1	agcgtg	
ENSDARG00000024480	ENSDART00000034117	Dr.3512.1.A1_at	Q6NWE8_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6NWE8]	-1593	-1588	-1	tcgctg	
ENSDARG00000024480	ENSDART00000034117	Dr.3512.1.A1_at	Q6NWE8_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6NWE8]	-1573	-1568	-1	tcgctg	
ENSDARG00000024480	ENSDART00000034117	Dr.3512.1.A1_at	Q6NWE8_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6NWE8]	-1569	-1564	-1	tcgctg	
ENSDARG00000024480	ENSDART00000034117	Dr.3512.1.A1_at	Q6NWE8_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6NWE8]	-1565	-1560	-1	tcgctg	
		Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at							
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3817	-3812	-1	agcgtg	
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-3698	-3693	-1	agcgtg	
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-2476	-2471	-1	cgctgt	
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4576	-4571	1	ggcgtg	
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at			-4314	-4309	1	agcgtg	
ENSDARG00000024892	ENSDART00000033228	.2.S1_at,Dr.3025.3.S1_at,Dr.25379.1.S1_at,Dr.3025.1.A1_at,Dr.3025.3.S1_at			-4209	-4204	1	tcgctg	



Supplementary Table 2 (cont.). Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-4658	-4653	1	tcgctg
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-166	-161	-1	tcgctg
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-136	-131	1	tcgctg
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-4658	-4653	1	tcgctg
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-166	-161	-1	tcgctg
ENSDARG00000027088	ENSART00000039267	Dr.1192.1.S1_at,Dr.1192.1.S1_a_at	wu:fb1h03	prostaglandin D2 synthase [Source:RefSeq_peptide;Acc:NP_998799]	-136	-131	1	tcgctg
ENSDARG00000027669	ENSART00000035274	Dr.1991.1.A1_s_at	zgc:66417	hypothetical protein LOC387303 [Source:RefSeq_peptide;Acc:NP_956419]	-2874	-2869	1	tcgctg
ENSDARG00000027669	ENSART00000035274	Dr.1991.1.A1_s_at	zgc:66417	hypothetical protein LOC387303 [Source:RefSeq_peptide;Acc:NP_956419]	-129	-124	-1	ggcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-3372	-3367	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-2691	-2686	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-1910	-1905	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4427	-4422	1	cgcgtg
ENSDARG00000027924	ENSART00000047994	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4195	-4190	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-3372	-3367	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-2691	-2686	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-1910	-1905	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4427	-4422	1	cgcgtg
ENSDARG00000027924	ENSART00000047994	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4195	-4190	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-3372	-3367	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-2691	-2686	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-1910	-1905	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4427	-4422	1	cgcgtg
ENSDARG00000027924	ENSART00000047994	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4195	-4190	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-3372	-3367	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-2691	-2686	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-1910	-1905	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4427	-4422	1	cgcgtg
ENSDARG00000027924	ENSART00000047994	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4195	-4190	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-3372	-3367	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-2691	-2686	-1	agcgtg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-1910	-1905	1	tcgctg
ENSDARG00000027924	ENSART00000024900	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4427	-4422	1	cgcgtg
ENSDARG00000027924	ENSART00000047994	593.1.S1_at,Dr.4412.12.A1_at,Dr.25527.1.A1_x_at,Dr.25527.1.A1_at Dr.25593.2.A1_at,Dr.25593.1.S1_at,Dr.4412.12.A1_at,Dr.25593.2.A1_at,Dr.25			-4195	-4190	1	tcgctg
ENSDARG00000028618	ENSART00000028260	Dr.890.1.S1_at	zgc:77517	hypothetical protein LOC393540 [Source:RefSeq_peptide;Acc:NP_956862]	-3818	-3813	-1	tcgctg
ENSDARG00000028618	ENSART00000028260	Dr.890.1.S1_at	zgc:77517	hypothetical protein LOC393540 [Source:RefSeq_peptide;Acc:NP_956862]	-102	-97	1	cgcgtg
ENSDARG00000028784	ENSART00000044410	Dr.12714.1.A1_at			-551	-546	-1	agcgtg
ENSDARG00000029086	ENSART00000041921	Dr.1282.1.S1_at	kr18	keratin 8 [Source:RefSeq_peptide;Acc:NP_956374]	-3387	-3382	-1	cgcgtg
ENSDARG00000030236	ENSART00000011928	Dr.1368.7.S1_at	zgc:91877	hypothetical protein LOC337397 [Source:RefSeq_peptide;Acc:NP_997941]	-1028	-1023	-1	tcgctg
ENSDARG00000030236	ENSART00000011928	Dr.1368.7.S1_at	zgc:91877	hypothetical protein LOC337397 [Source:RefSeq_peptide;Acc:NP_997941]	77	82	-1	agcgtg
ENSDARG00000030662	ENSART00000048550	Dr.9682.1.A1_at			-3682	-3677	1	tcgctg
ENSDARG00000030662	ENSART00000048550	Dr.9682.1.A1_at			-1444	-1439	1	cgcgtg
ENSDARG00000030662	ENSART00000048550	Dr.9682.1.A1_at			-301	-296	-1	tcgctg
ENSDARG00000030662	ENSART00000048550	Dr.9682.1.A1_at			-4904	-4899	-1	agcgtg
ENSDARG00000031664	ENSART00000049339	Dr.8215.1.A1_at	sox21a	SRY-box 21 [Source:RefSeq_peptide;Acc:NP_571361]	-2414	-2409	1	agcgtg
ENSDARG00000031664	ENSART00000049339	Dr.8215.1.A1_at	sox21a	SRY-box 21 [Source:RefSeq_peptide;Acc:NP_571361]	-311	-306	-1	ggcgtg
ENSDARG00000031664	ENSART00000049339	Dr.8215.1.A1_at	sox21a	SRY-box 21 [Source:RefSeq_peptide;Acc:NP_571361]	-213	-208	1	cgcgtg
ENSDARG00000031854	ENSART00000043418	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-4616	-4611	-1	tcgctg
ENSDARG00000031854	ENSART00000043418	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-769	-764	1	cgcgtg
ENSDARG00000031854	ENSART00000043418	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-545	-540	-1	ggcgtg
ENSDARG00000031854	ENSART00000050805	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-4616	-4611	-1	tcgctg
ENSDARG00000031854	ENSART00000050805	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-769	-764	1	cgcgtg
ENSDARG00000031854	ENSART00000050805	Dr.7688.1.A1_at,Dr.7688.1.A1_at			-545	-540	-1	ggcgtg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-3386	-3381	-1	cgcgtg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-2983	-2978	1	ggcgtg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-2703	-2698	-1	tcgctg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-2417	-2412	-1	tcgctg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-2381	-2376	1	tcgctg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-1870	-1865	1	tcgctg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-4407	-4402	-1	ggcgtg
ENSDARG00000033770	ENSART00000011961	Dr.25009.6.A1_a_at	vg1	Vitellogenin 1 (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q8JH36]	-4306	-4301	1	cgcgtg
ENSDARG00000033949	ENSART00000045135	Dr.18466.1.A1_at	NP_001017680.1	hypothetical protein LOC550375 [Source:RefSeq_peptide;Acc:NP_001017680]	-3737	-3732	1	tcgctg
ENSDARG00000033949	ENSART00000045135	Dr.18466.1.A1_at	NP_001017680.1	hypothetical protein LOC550375 [Source:RefSeq_peptide;Acc:NP_001017680]	-1464	-1459	1	agcgtg
ENSDARG00000034351	ENSART00000043771	Dr.23631.1.S1_at	tagln2	transgelin 2 [Source:RefSeq_peptide;Acc:NP_963870]	-1492	-1487	1	agcgtg
ENSDARG00000035160	ENSART00000050933	Dr.13775.1.S1_at			-40	-35	1	agcgtg
ENSDARG00000035666	ENSART00000051733	Dr.4797.1.S1_at	Q6DGW1_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6DGW1]	-3118	-3113	-1	ggcgtg
ENSDARG00000035666	ENSART00000051733	Dr.4797.1.S1_at	Q6DGW1_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6DGW1]	-3045	-3040	1	agcgtg
ENSDARG00000035666	ENSART00000051733	Dr.4797.1.S1_at	Q6DGW1_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6DGW1]	-1406	-1401	1	ggcgtg
ENSDARG00000035666	ENSART00000051733	Dr.4797.1.S1_at	Q6DGW1_BRARE	Hypothetical protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6DGW1]	-859	-854	1	tcgctg
ENSDARG00000035743	ENSART00000051853	Dr.14748.1.S1_at	zgc:63985	Unknown (protein for MGC:63985) [Source:RefSeq_peptide;Acc:NP_956252]	-1043	-1038	1	agcgtg
ENSDARG00000036082	ENSART00000052385	Dr.15819.1.A1_at,Dr.17776.1.A1_at	NP_001001843.1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-3632	-3627	1	tcgctg
ENSDARG00000036082	ENSART00000052385	Dr.15819.1.A1_at,Dr.17776.1.A1_at	NP_001001843.1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-1852	-1847	1	agcgtg
ENSDARG00000036082	ENSART00000052385	Dr.15819.1.A1_at,Dr.17776.1.A1_at	NP_001001843.1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-1701	-1696	-1	agcgtg

Supplementary Table 2 (cont.). Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG0000036082	ENSDART0000052385	Dr.15819.1.A1_at,Dr.17776.1.A1_at	NP_001001843.1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-240	-235	-1	agcgtg
ENSDARG0000036082	ENSDART0000052385	Dr.15819.1.A1_at,Dr.17776.1.A1_at	NP_001001843.1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-56	-51	1	cgcggt
ENSDARG0000036470	ENSDART0000052991	Dr.10326.1.S1_at	junb	jun B proto-oncogene [Source:RefSeq_peptide;Acc:NP_998721]	-66	-61	-1	ggcggt
ENSDARG0000036481	ENSDART0000053001	Dr.6550.1.A1_at	Q6PG35_BRARE	LOC407646 protein (Fragment). [Source:Uniprot/SPTREMBL;Acc:Q6PG35]	-4651	-4646	-1	tcgctg
ENSDARG0000036517	ENSDART0000053070	Dr.14111.1.S1_at	si:xx-by187g17.1	Novel protein similar to zebrafish hemoglobin alpha-adult 1 (Hbaa1). [Source:Uniprot/SPTREMBL;Acc:Q6ZM17]	-2107	-2102	-1	tcgctg
ENSDARG0000036517	ENSDART0000053070	Dr.14111.1.S1_at	si:xx-by187g17.1	Novel protein similar to zebrafish hemoglobin alpha-adult 1 (Hbaa1). [Source:Uniprot/SPTREMBL;Acc:Q6ZM17]	-4586	-4581	1	tcgctg
ENSDARG0000036518	ENSDART0000043748	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-3361	-3356	1	tcgctg
ENSDARG0000036518	ENSDART0000043748	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-1341	-1336	-1	tcgctg
ENSDARG0000036518	ENSDART0000043748	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-4481	-4476	-1	tcgctg
ENSDARG0000036519	ENSDART0000053072	Dr.14111.1.S1_at	hbaa1	Hemoglobin alpha chain (Alpha globin aa1). [Source:Uniprot/SWISSPROT;Acc:Q90487]	-2950	-2945	1	cgcggt
ENSDARG0000036521	ENSDART0000053073	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-3811	-3806	1	tcgctg
ENSDARG0000036521	ENSDART0000053073	Dr.25155.1.S1_s_at	ba2	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-1332	-1327	-1	tcgctg
ENSDARG0000036527	ENSDART0000053078	Dr.14111.1.S1_at	si:xx-by187g17.1	hemoglobin alpha adult-1 (hbaa1), mRNA [Source:RefSeq_dna;Acc:NM_131257]	-2104	-2099	-1	tcgctg
ENSDARG0000036527	ENSDART0000053078	Dr.14111.1.S1_at	si:xx-by187g17.1	hemoglobin alpha adult-1 (hbaa1), mRNA [Source:RefSeq_dna;Acc:NM_131257]	-4583	-4578	1	tcgctg
ENSDARG0000036528	ENSDART0000053080	Dr.8723.1.S1_at	NP_001002461.1	zgc:92903 [Source:RefSeq_peptide;Acc:NP_001002461]	-1100	-1095	-1	agcgtg
ENSDARG0000036528	ENSDART0000053080	Dr.8723.1.S1_at	NP_001002461.1	zgc:92903 [Source:RefSeq_peptide;Acc:NP_001002461]	-48	-43	1	tcgctg
ENSDARG0000036529	ENSDART0000053081	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-3358	-3353	1	tcgctg
ENSDARG0000036529	ENSDART0000053081	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-1341	-1336	-1	tcgctg
ENSDARG0000036529	ENSDART0000053081	Dr.25155.1.S1_s_at	ba2l	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-4476	-4471	-1	tcgctg
ENSDARG0000036531	ENSDART0000053083	Dr.14111.1.S1_at	hbaa1	Hemoglobin alpha chain (Alpha globin aa1). [Source:Uniprot/SWISSPROT;Acc:Q90487]	-2943	-2938	1	cgcggt
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3938	-3933	-1	cgcggt
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3823	-3818	-1	tcgctg
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3765	-3760	1	ggcggt
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3350	-3345	1	agcgtg
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4669	-4664	1	agcgtg
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4994	-4989	-1	ggcggt
ENSDARG0000036533	ENSDART0000053086	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4937	-4932	-1	ggcggt
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3902	-3897	-1	cgcggt
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3787	-3782	-1	tcgctg
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3729	-3724	1	ggcggt
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-3314	-3309	1	agcgtg
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4633	-4628	1	agcgtg
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4958	-4953	-1	ggcggt
ENSDARG0000036533	ENSDART0000053087	Dr.10170.1.A1_at,Dr.10170.1.A1_at			-4901	-4896	-1	ggcggt
ENSDARG0000036535	ENSDART0000042396	Dr.25155.1.S1_s_at	ba2	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-3804	-3799	1	tcgctg
ENSDARG0000036535	ENSDART0000042396	Dr.25155.1.S1_s_at	ba2	Hemoglobin beta-1 chain (BetaA1 globin). [Source:Uniprot/SWISSPROT;Acc:Q90486]	-1325	-1320	-1	tcgctg
ENSDARG0000037281	ENSDART0000054230	Dr.4907.1.S1_at	NP_998219.1	fibrinogen gamma polypeptide [Source:RefSeq_peptide;Acc:NP_998219]	-4801	-4796	1	cgcggt
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-3332	-3327	1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-4700	-4695	-1	cgcggt
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-1223	-1218	-1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-1219	-1214	-1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-1203	-1198	-1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-1199	-1194	-1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-578	-573	-1	tcgctg
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-351	-346	1	ggcggt
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-243	-238	-1	cgcggt
ENSDARG0000037618	ENSDART0000054788	Dr.13972.1.S1_at	zgc:64114	hypothetical protein LOC378866 [Source:RefSeq_peptide;Acc:NP_956401]	-30	-25	-1	tcgctg
ENSDARG0000038321	ENSDART0000055897	Dr.9682.1.A1_at			-3855	-3850	1	tcgctg
ENSDARG0000038321	ENSDART0000055897	Dr.9682.1.A1_at			-1979	-1974	-1	ggcggt
ENSDARG0000038321	ENSDART0000055897	Dr.9682.1.A1_at			-346	-341	-1	tcgctg
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-4477	-4472	1	agcgtg
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-1704	-1699	1	agcgtg
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-4665	-4660	1	ggcggt
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-1420	-1415	1	ggcggt
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-1399	-1394	-1	ggcggt
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-1221	-1216	1	tcgctg
ENSDARG0000038622	ENSDART0000056382	Dr.20270.1.S1_at			-1057	-1052	-1	tcgctg
ENSDARG0000038812	ENSDART0000056679	Dr.20140.1.A1_at	NP_991178.1	E2F transcription factor 4, p107/p130-binding [Source:RefSeq_peptide;Acc:NP_991178]	-3847	-3842	1	ggcggt
ENSDARG0000038813	ENSDART0000056680	Dr.20140.1.A1_at	NP_991178.1	E2F transcription factor 4, p107/p130-binding [Source:RefSeq_peptide;Acc:NP_991178]	-3732	-3727	1	ggcggt
ENSDARG0000039027	ENSDART0000056969	Dr.4797.1.S1_at,Dr.4797.1.S1_at			-2978	-2973	-1	agcgtg
ENSDARG0000039027	ENSDART0000056969	Dr.4797.1.S1_at,Dr.4797.1.S1_at			-862	-857	-1	tcgctg
ENSDARG0000039027	ENSDART0000056969	Dr.4797.1.S1_at,Dr.4797.1.S1_at			-540	-535	1	ggcggt
ENSDARG0000039027	ENSDART0000056969	Dr.4797.1.S1_at,Dr.4797.1.S1_at			-4068	-4063	-1	agcgtg
ENSDARG0000039728	ENSDART0000037346	Dr.3581.1.S1_at,Dr.3581.1.S1_a_at	ctrb1	chymotrypsinogen B1 [Source:RefSeq_peptide;Acc:NP_997783]	-4839	-4834	-1	ggcggt
ENSDARG0000039747	ENSDART0000058095	Dr.4797.1.S1_at			-2916	-2911	-1	ggcggt
ENSDARG0000039747	ENSDART0000058095	Dr.4797.1.S1_at			-2797	-2792	1	agcgtg
ENSDARG0000039747	ENSDART0000058095	Dr.4797.1.S1_at			-2399	-2394	1	agcgtg
ENSDARG0000039747	ENSDART0000058095	Dr.4797.1.S1_at			-1967	-1962	-1	tcgctg
ENSDARG0000039841	ENSDART0000058272	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-2848	-2843	1	tcgctg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-3815	-3810	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-2730	-2725	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-1064	-1059	1	tcgctg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-3815	-3810	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-2730	-2725	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-1064	-1059	1	tcgctg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-3815	-3810	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-2730	-2725	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-1064	-1059	1	tcgctg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-3815	-3810	1	agcgtg
ENSDARG0000039914	ENSDART0000058384	AFFX-Dr-GAPDH-3_at,AFFX-Dr-GAPDH-M_at,Dr.1194.1.S1_at,AFFX-Dr-GAPDH-5_at	zgc:76908	glyceraldehyde 3-phosphate dehydrogenase [Source:RefSeq_peptide;Acc:NP_998259]	-2730	-2725	1	agcgtg



Supplementary Table 2 (cont.). Location of putative AHRES

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2312	-2307	-1	tcgctg
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2072	-2067	-1	agcgtg
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-4585	-4580	1	agcgtg
ENSDARG00000041685	ENSDART0000006984	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-3122	-3117	-1	tcgctg
ENSDARG00000041685	ENSDART0000006984	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2882	-2877	-1	agcgtg
ENSDARG00000041685	ENSDART0000006984	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-629	-624	-1	ggcgtg
ENSDARG00000041685	ENSDART00000061093	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-3476	-3471	1	ggcgtg
ENSDARG00000041685	ENSDART00000061093	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-3106	-3101	-1	tcgctg
ENSDARG00000041685	ENSDART00000061093	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2371	-2366	-1	ggcgtg
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2312	-2307	-1	tcgctg
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-2072	-2067	-1	agcgtg
ENSDARG00000041685	ENSDART00000061098	Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.25379.1.S1_at,Dr.3025.3.S1_at,Dr.16397.1.A1_at,Dr.3025.2.S1_at,Dr.3025.3.S1_at			-4585	-4580	1	agcgtg
ENSDARG00000041769	ENSDART00000061219	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-1147	-1142	1	agcgtg
ENSDARG00000041769	ENSDART00000061219	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-593	-588	1	tcgctg
ENSDARG00000041769	ENSDART00000061219	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-11	-6	1	cgctgt
ENSDARG00000041774	ENSDART00000061223	Dr.25009.6.A1_a_at			-3462	-3457	1	tcgctg
ENSDARG00000041774	ENSDART00000061223	Dr.25009.6.A1_a_at			-3163	-3158	-1	tcgctg
ENSDARG00000041774	ENSDART00000061223	Dr.25009.6.A1_a_at			-2354	-2349	1	tcgctg
ENSDARG00000041813	ENSDART00000061279	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-1147	-1142	1	agcgtg
ENSDARG00000041813	ENSDART00000061279	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-593	-588	1	tcgctg
ENSDARG00000041813	ENSDART00000061279	Dr.7806.1.A1_at	NP_001014360.1	hypothetical protein LOC541525 [Source:RefSeq_peptide;Acc:NP_001014360]	-11	-6	1	cgctgt
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-3994	-3989	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-3121	-3116	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-3028	-3023	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-2933	-2928	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-2886	-2881	-1	ggcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-2842	-2837	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-2749	-2744	-1	tcgctg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1985	-1980	1	ggcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1912	-1907	-1	cgctgt
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1723	-1718	1	agcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1616	-1611	1	cgctgt
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1309	-1304	-1	agcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1225	-1220	1	agcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-1129	-1124	-1	agcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-204	-199	1	ggcgtg
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-4007	-4002	-1	cgctgt
ENSDARG00000041997	ENSDART00000061544	Dr.12106.1.S1_at	NP_955881.1	leucine zipper transcription factor-like 1 [Source:RefSeq_peptide;Acc:NP_955881]	-4005	-4000	1	cgctgt
ENSDARG00000042035	ENSDART00000061601	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-2073	-2068	1	tcgctg
ENSDARG00000042035	ENSDART00000061601	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-1107	-1102	1	agcgtg
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-3478	-3473	1	cgctgt
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-2685	-2680	-1	agcgtg
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-1952	-1947	-1	agcgtg
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-4240	-4235	-1	cgctgt
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-4141	-4136	1	ggcgtg
ENSDARG00000042036	ENSDART00000061605	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-4030	-4025	-1	tcgctg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-3458	-3453	1	cgctgt
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-3452	-3447	-1	cgctgt
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-3296	-3291	-1	agcgtg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-3099	-3094	1	tcgctg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-4806	-4801	-1	agcgtg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-2894	-2889	-1	agcgtg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-2740	-2735	-1	agcgtg
ENSDARG00000042040	ENSDART00000061613	Dr.7110.1.S1_at			-1791	-1786	1	tcgctg
ENSDARG00000042046	ENSDART00000061618	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-1760	-1755	1	tcgctg
ENSDARG00000042050	ENSDART00000061623	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-3571	-3566	-1	ggcgtg
ENSDARG00000042050	ENSDART00000061623	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-1913	-1908	-1	agcgtg
ENSDARG00000042102	ENSDART00000061707	Dr.13689.1.S1_at	zgc:63985	Unknown (protein for MGC:66449) [Source:RefSeq_peptide;Acc:NP_956095]	-2802	-2797	-1	cgctgt
ENSDARG00000042391	ENSDART00000062156	Dr.14748.1.S1_at	zgc:63985	zgc:63985 (zgc:63985), mRNA [Source:RefSeq_dna;Acc:NM_199958]	-1900	-1895	-1	tcgctg
ENSDARG00000042391	ENSDART00000062156	Dr.14748.1.S1_at	zgc:63985	zgc:63985 (zgc:63985), mRNA [Source:RefSeq_dna;Acc:NM_199958]	-1043	-1038	1	agcgtg
ENSDARG00000043218	ENSDART00000063453	Dr.15054.1.S1_at	rbp2a	retinol binding protein 2a, cellular [Source:RefSeq_peptide;Acc:NP_694549]	-2638	-2633	1	ggcgtg
ENSDARG00000043218	ENSDART00000063453	Dr.15054.1.S1_at	rbp2a	retinol binding protein 2a, cellular [Source:RefSeq_peptide;Acc:NP_694549]	-2352	-2347	1	cgctgt
ENSDARG00000043218	ENSDART00000063453	Dr.15054.1.S1_at	rbp2a	retinol binding protein 2a, cellular [Source:RefSeq_peptide;Acc:NP_694549]	-1487	-1482	1	tcgctg
ENSDARG00000043218	ENSDART00000063453	Dr.15054.1.S1_at	rbp2a	retinol binding protein 2a, cellular [Source:RefSeq_peptide;Acc:NP_694549]	-4225	-4220	1	agcgtg
ENSDARG00000043320	ENSDART00000063596	Dr.14268.1.A1_at,Dr.18893.1.S1_at			-4981	-4976	1	tcgctg
ENSDARG00000043320	ENSDART00000063596	Dr.14268.1.A1_at,Dr.18893.1.S1_at			-557	-552	1	ggcgtg
ENSDARG00000043320	ENSDART00000063596	Dr.14268.1.A1_at,Dr.18893.1.S1_at			-251	-246	1	agcgtg
ENSDARG00000043592	ENSDART00000064008	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-734	-729	-1	cgctgt
ENSDARG00000043592	ENSDART00000064008	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-561	-556	-1	agcgtg
ENSDARG00000043592	ENSDART00000064008	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-527	-522	-1	tcgctg
ENSDARG00000043592	ENSDART00000064010	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-533	-528	-1	cgctgt
ENSDARG00000043592	ENSDART00000064010	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-360	-355	-1	agcgtg
ENSDARG00000043592	ENSDART00000064010	Dr.17113.1.A1_a_at,Dr.3889.1.A1_at,Dr.17113.1.A1_a_at,Dr.3889.1.A1_at	ptena	phosphatase and tensin-like protein A [Source:RefSeq_peptide;Acc:NP_957002]	-326	-321	-1	tcgctg
ENSDARG00000043618	ENSDART00000064041	Dr.7236.1.A1_at,Dr.7236.1.A1_at			-2734	-2729	-1	cgctgt



Supplementary Table 2 (cont.). Location of putative AHREs

Gene ID	Transcript ID	Affy IDs	Symbol	Description	Start	End	Strand	Sequence
ENSDARG00000043618	ENSDART00000064041	Dr.7236.1.A1_at,Dr.7236.1.A1_at			-2732	-2727	1	cgcggtg
ENSDARG00000043618	ENSDART00000064044	Dr.7236.1.A1_at,Dr.7236.1.A1_at			-2734	-2729	-1	cgcggtg
ENSDARG00000043618	ENSDART00000064044	Dr.7236.1.A1_at,Dr.7236.1.A1_at			-2732	-2727	1	cgcggtg
ENSDARG00000043670	ENSDART00000024462	Dr.1605.1.S1_at	NM_001013259.1	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antipeptidase, antitrypsin), member 1 (serpin1), mRNA [Source:RefSeq_dna;Acc:NM_001013259]	-4819	-4814	1	agcggtg
ENSDARG00000043670	ENSDART00000024462	Dr.1605.1.S1_at	NM_001013259.1	serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antipeptidase, antitrypsin), member 1 (serpin1), mRNA [Source:RefSeq_dna;Acc:NM_001013259]	-4143	-4138	1	agcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-3071	-3066	-1	tcgctgt
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-2789	-2784	1	cgcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-2454	-2449	-1	ggcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-1360	-1355	1	ggcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-942	-937	-1	cgcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-105	-100	-1	cgcggtg
ENSDARG00000043692	ENSDART00000064157	Dr.19877.1.S1_at	zgc:66133	hypothetical protein LOC393468 [Source:RefSeq_peptide;Acc:NP_956790]	-16	-11	-1	cgcggtg
ENSDARG00000043960	ENSDART00000064542	Dr.6147.1.A1_at	zgc:77150	hypothetical protein LOC406587 [Source:RefSeq_peptide;Acc:NP_999913]	-3939	-3934	-1	agcggtg
ENSDARG00000043960	ENSDART00000064542	Dr.6147.1.A1_at	zgc:77150	hypothetical protein LOC406587 [Source:RefSeq_peptide;Acc:NP_999913]	-4689	-4684	1	cgcggtg
ENSDARG00000043960	ENSDART00000064542	Dr.6147.1.A1_at	zgc:77150	hypothetical protein LOC406587 [Source:RefSeq_peptide;Acc:NP_999913]	-552	-547	1	tcgctgt
ENSDARG00000043960	ENSDART00000064542	Dr.6147.1.A1_at	zgc:77150	hypothetical protein LOC406587 [Source:RefSeq_peptide;Acc:NP_999913]	-4539	-4534	1	tcgctgt
ENSDARG00000043990	ENSDART00000064579	Dr.7806.1.A1_at	zgc:77150	hypothetical protein LOC406587 [Source:RefSeq_peptide;Acc:NP_999913]	-138	-133	1	tcgctgt
ENSDARG00000043997	ENSDART00000064586	Dr.11609.1.S1_at	Q7SZD0_BRARE	LOC402847 protein (Fragment) [Source:UniProt/SPTREMBL;Acc:Q7SZD0]	-2929	-2924	-1	agcggtg
ENSDARG00000043997	ENSDART00000064586	Dr.11609.1.S1_at	Q7SZD0_BRARE	LOC402847 protein (Fragment) [Source:UniProt/SPTREMBL;Acc:Q7SZD0]	-600	-595	-1	tcgctgt
ENSDARG00000043997	ENSDART00000064586	Dr.11609.1.S1_at	Q7SZD0_BRARE	LOC402847 protein (Fragment) [Source:UniProt/SPTREMBL;Acc:Q7SZD0]	-552	-547	-1	tcgctgt
ENSDARG00000043997	ENSDART00000064586	Dr.11609.1.S1_at	Q7SZD0_BRARE	LOC402847 protein (Fragment) [Source:UniProt/SPTREMBL;Acc:Q7SZD0]	-67	-62	1	ggcggtg
ENSDARG00000044001	ENSDART00000064597	Dr.20815.3.A1_at	NP_999858.1	chimera galectin Gal3 [Source:RefSeq_peptide;Acc:NP_999858]	-3720	-3715	-1	tcgctgt
ENSDARG00000044001	ENSDART00000064597	Dr.20815.3.A1_at	NP_999858.1	chimera galectin Gal3 [Source:RefSeq_peptide;Acc:NP_999858]	-371	-366	-1	tcgctgt
ENSDARG00000044002	ENSDART00000064591	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-3995	-3990	-1	tcgctgt
ENSDARG00000044002	ENSDART00000064591	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-4812	-4807	-1	agcggtg
ENSDARG00000044002	ENSDART00000064591	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-4972	-4967	-1	tcgctgt
ENSDARG00000044002	ENSDART00000064591	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-1517	-1512	1	tcgctgt
ENSDARG00000044002	ENSDART00000064596	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-439	-434	-1	tcgctgt
ENSDARG00000044002	ENSDART00000064596	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-1653	-1648	-1	ggcggtg
ENSDARG00000044002	ENSDART00000064596	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-1300	-1295	-1	tcgctgt
ENSDARG00000044002	ENSDART00000064596	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-1140	-1135	-1	agcggtg
ENSDARG00000044002	ENSDART00000064596	Dr.11609.1.S1_at,Dr.11609.1.S1_at	NP_001002187.1	hypothetical protein LOC431734 [Source:RefSeq_peptide;Acc:NP_001002187]	-323	-318	-1	tcgctgt
ENSDARG00000044101	ENSDART00000064753	Dr.18135.1.A1_at	zgc:92568	zgc:92568 [Source:RefSeq_peptide;Acc:NP_001005937]	-4881	-4876	1	ggcggtg
ENSDARG00000044101	ENSDART00000064753	Dr.18135.1.A1_at	zgc:92568	zgc:92568 [Source:RefSeq_peptide;Acc:NP_001005937]	-475	-470	1	agcggtg
ENSDARG00000044125	ENSDART00000064789	Dr.8723.1.S1_at	zgc:92903	zgc:92903 [Source:RefSeq_peptide;Acc:NP_001002461]	-1108	-1103	-1	agcggtg
ENSDARG00000044125	ENSDART00000064789	Dr.8723.1.S1_at	zgc:92903	zgc:92903 [Source:RefSeq_peptide;Acc:NP_001002461]	-48	-43	1	tcgctgt
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-3256	-3251	-1	agcggtg
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-1753	-1748	-1	tcgctgt
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-76	-71	-1	ggcggtg
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-43	-38	1	agcggtg
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-3256	-3251	-1	agcggtg
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-1753	-1748	-1	tcgctgt
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-76	-71	-1	ggcggtg
ENSDARG00000044176	ENSDART00000064858	Dr.23470.1.S1_s_at,Dr.8198.1.A1_at	kmlm2.2	Kreisler (mouse) maf-related leucine zipper homolog 2.2 [Source:RefSeq_peptide;Acc:NP_571917]	-43	-38	1	agcggtg
ENSDARG00000044613	ENSDART00000014927	Dr.14041.1.S1_at	NP_001005976.1	hypothetical protein LOC449803 [Source:RefSeq_peptide;Acc:NP_001005976]	-3600	-3595	1	ggcggtg
ENSDARG00000044613	ENSDART00000014927	Dr.14041.1.S1_at	NP_001005976.1	hypothetical protein LOC449803 [Source:RefSeq_peptide;Acc:NP_001005976]	-3377	-3372	1	cgcggtg
ENSDARG00000044613	ENSDART00000014927	Dr.14041.1.S1_at	NP_001005976.1	hypothetical protein LOC449803 [Source:RefSeq_peptide;Acc:NP_001005976]	-58	-53	-1	tcgctgt
ENSDARG00000044613	ENSDART00000014927	Dr.14041.1.S1_at	NP_001005976.1	hypothetical protein LOC449803 [Source:RefSeq_peptide;Acc:NP_001005976]	-39	-34	1	agcggtg
ENSDARG00000044625	ENSDART00000065562	Dr.14268.1.A1_at,Dr.18893.1.S1_at	zgc:92226	hypothetical protein LOC492341 [Source:RefSeq_peptide;Acc:NP_001007308]	-4982	-4977	1	tcgctgt
ENSDARG00000044625	ENSDART00000065562	Dr.14268.1.A1_at,Dr.18893.1.S1_at	zgc:92226	hypothetical protein LOC492341 [Source:RefSeq_peptide;Acc:NP_001007308]	-251	-246	1	agcggtg
ENSDARG00000044936	ENSDART00000066051	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-3792	-3787	1	tcgctgt
ENSDARG00000044936	ENSDART00000066051	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-3267	-3262	1	cgcggtg
ENSDARG00000044936	ENSDART00000066051	Dr.7110.1.S1_at	zgc:77614	hypothetical protein LOC393868 [Source:RefSeq_peptide;Acc:NP_957188]	-4066	-4061	1	tcgctgt
ENSDARG00000044975	ENSDART00000030103	Dr.1361.1.S1_at			-3650	-3645	1	cgcggtg
ENSDARG00000044975	ENSDART00000030103	Dr.1361.1.S1_at			-2276	-2271	1	agcggtg
ENSDARG00000044975	ENSDART00000030103	Dr.1361.1.S1_at			-1621	-1616	-1	ggcggtg
ENSDARG00000044975	ENSDART00000030103	Dr.1361.1.S1_at			-4656	-4651	-1	tcgctgt
ENSDARG00000044975	ENSDART00000030103	Dr.1361.1.S1_at			-50	-45	1	agcggtg
ENSDARG00000044983	ENSDART00000066126	Dr.7110.1.S1_at			-3372	-3367	1	agcggtg
ENSDARG00000045180	ENSDART00000066430	Dr.20277.1.A1_at	NP_997785.1	actin, alpha 2, smooth muscle, aorta [Source:RefSeq_peptide;Acc:NP_997785]	-2999	-2994	1	agcggtg
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-3672	-3667	1	tcgctgt
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-3639	-3634	-1	cgcggtg
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-3033	-3028	-1	agcggtg
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-1880	-1875	1	ggcggtg
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-294	-289	-1	tcgctgt
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-22	-17	-1	ggcggtg
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-4498	-4493	-1	tcgctgt
ENSDARG00000045230	ENSDART00000066506	Dr.956.1.S1_at	NP_001002695.1	zgc:92631 [Source:RefSeq_peptide;Acc:NP_001002695]	-4452	-4447	-1	tcgctgt
ENSDARG00000045407	ENSDART00000066773	Dr.10879.1.A1_at	NP_001018414.1	hypothetical protein LOC553602 [Source:RefSeq_peptide;Acc:NP_001018414]	-3212	-3207	-1	tcgctgt
ENSDARG00000045407	ENSDART00000066773	Dr.10879.1.A1_at	NP_001018414.1	hypothetical protein LOC553602 [Source:RefSeq_peptide;Acc:NP_001018414]	-877	-872	1	agcggtg
ENSDARG00000045407	ENSDART00000066773	Dr.10879.1.A1_at	NP_001018414.1	hypothetical protein LOC553602 [Source:RefSeq_peptide;Acc:NP_001018414]	-100	-95	-1	agcggtg
ENSDARG00000045567	ENSDART00000067004	Dr.13994.1.S1_x_at,Dr.13994.2.A1_a_at,Dr.13994.1.S1_at,Dr.13994.2.A1_x_at,Dr.2819.1.A1_at	zgc:101086	hypothetical protein LOC445172 [Source:RefSeq_peptide;Acc:NP_001003566]	-2856	-2851	-1	tcgctgt
ENSDARG00000045567	ENSDART00000067004	Dr.13994.1.S1_x_at,Dr.13994.2.A1_a_at,Dr.13994.1.S1_at,Dr.13994.2.A1_x_at,Dr.2819.1.A1_at	zgc:101086	hypothetical protein LOC445172 [Source:RefSeq_peptide;Acc:NP_001003566]	-2844	-2839	-1	agcggtg
ENSDARG00000045567	ENSDART00000067004	Dr.13994.1.S1_x_at,Dr.13994.2.A1_a_at,Dr.13994.1.S1_at,Dr.13994.2.A1_x_at,Dr.2819.1.A1_at	zgc:101086	hypothetical protein LOC445172 [Source:RefSeq_peptide;Acc:NP_001003566]				
ENSDARG00000045585	ENSDART00000067027	Dr.13689.1.S1_at	zgc:66449	Unknown (protein for MGC:66449) [Source:RefSeq_peptide;Acc:NP_956095]	-2742	-2737	-1	ggcggtg
ENSDARG00000045585	ENSDART00000067027	Dr.13689.1.S1_at	zgc:66449	Unknown (protein for MGC:66449) [Source:RefSeq_peptide;Acc:NP_956095]	-2806	-2801	-1	cgcggtg
ENSDARG00000045678	ENSDART00000067159	Dr.15819.1.A1_at,Dr.17776.1.A1_at	tpH1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-4153	-4148	-1	tcgctgt
ENSDARG00000045678	ENSDART00000067159	Dr.15819.1.A1_at,Dr.17776.1.A1_at	tpH1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-3633	-3628	1	tcgctgt
ENSDARG00000045678	ENSDART00000067159	Dr.15819.1.A1_at,Dr.17776.1.A1_at	tpH1	tryptophan hydroxylase 1, like [Source:RefSeq_peptide;Acc:NP_001001843]	-1855	-1850	1	agcggtg
ENSDARG00000045								